

CLAIMS

1. Security system for preventing unauthorized use, entrance or the like, comprising a number of secure devices⁽¹⁾, each of said secure devices⁽¹⁾ comprising a chip with logic circuitry^(1b) having a function in providing authorization to the security system, characterized in that in at least a ^{groups} part of said secure devices⁽¹⁾, the chip of a secure device is provided with a unique chip layout.

2. Security system according to claim 1, wherein at least said logic circuitry of the chips of said part of the secure devices⁽¹⁾ is implemented in FPGA technology, wherein the layout is programmed in the FPGA circuitry either in a volatile or non-volatile manner.

3. Security system according to claim 2, wherein the logic circuitry of each secure device chip is provided in a secure cell of the chip.

4. Security system according to claim 1, wherein the complete secure device chip is implemented in FPGA technology, wherein the layout is programmed in the chip either in a volatile or non-volatile manner.

5. Security system according to claim 2, ~~3 or 4~~, wherein the logic circuitry or the entire chip is made as a volatile programmable FPGA, wherein the FPGA program is stored in a battery powered RAM.

6. A set of secure devices⁽¹⁾ ^{For} to be used in a security system according to ~~any one of claims 1-5~~ ^{claim 1}, wherein each of said secure devices⁽¹⁾ comprises a chip with logic circuitry having a function in providing authorization to the holder of a secure device⁽¹⁾, wherein in at least a ^{groups} part of said secure devices⁽¹⁾, the chip of each secure device is provided with a unique chip layout.

7. A set according to claim 6, wherein at least said logic circuitry of the chips of said part of the secure devices⁽¹⁾ is implemented in FPGA technology, wherein the layout is programmed in the FPGA circuitry either in a

volatile or non-volatile manner.

8. Method for manufacturing a secure device for a security system according to ⁽¹¹⁾ ~~anyone of claims 1-5 or for a set of secure devices according to claim 6 or 7~~, wherein

- 5 secure devices ⁽¹¹⁾ with a chip are used, said chips having logic circuitry having a function in providing authorization to the security system, wherein in at least ⁽¹¹⁾ ~~a part~~ ^{groups} of said secure devices, the chip of a secure device is ^{manufactured} ~~provided~~ with a unique chip layout.

- 10 9. Method according to claim 8, wherein chips with logic circuitry in FPGA technology are use, said method comprising the steps of programming a unique information ⁽²³⁾ in the logic circuitry by means of synthesis tool ⁽²⁰⁾ and a layout tool ⁽²²⁾, wherein for each secure device ⁽¹¹⁾ of said part of secure devices ⁽¹¹⁾, a variation factor is introduced in at least one of the synthesis tool ⁽²⁰⁾ and the layout tool ⁽²²⁾, thereby providing a unique circuit layout.

10. Method according to claim 9, wherein the synthesis tool ⁽²⁰⁾ is provided with input information compiled from a high level language code ^(17, 18), wherein a variation factor ⁽¹⁷⁾ is introduced in at least one of the compilation step of the high level language code ^(17, 18), the synthesis tool ⁽²⁰⁾ and the layout tool ⁽²²⁾.